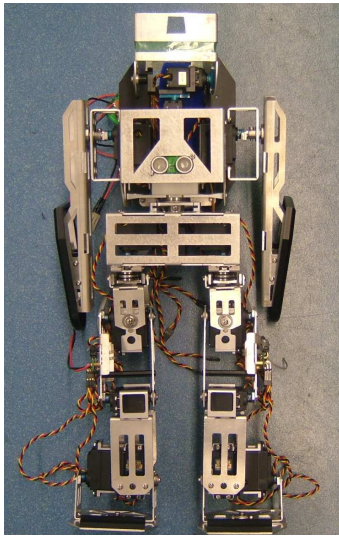


## Technical Specification of Robo-Erectus (KidSize)



Name : Robo-Erectus (KidSize)

Height : 50cm

Weight : 3kg

Walking/running speed : 2 meter/min

Number of degrees of freedom (DOF) : 23

Actuators used (e.g. servo, pneumatic muscle), for each type

1. Hitec HSR-5995TG
  - a. Torque : 24kg-cm
  - b. Speed : 0.15s
2. Hitec HS-5945MG
  - a. Torque : 13kg-cm
  - b. Speed : 0.13s

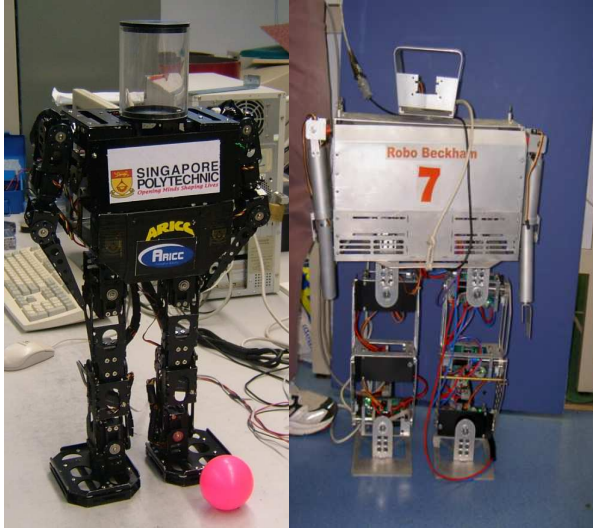
Sensors used (e.g. camera, accelerometer, force sensor), for each type

1. Ultrasonic sensor
2. Infra-red sensor
3. Tilt switch
4. Compass
5. CMUCam/Creative Labs WebCam Live! Ultra for Notebooks

Processing boards used, for each type

1. In-house designed interface board
  - a. Processor : PIC16F873A
  - b. Speed : 20 MHz
2. SONY VAIO VGN-U8G
  - a. Processor : Intel Celeron M Processor 353
  - b. Speed : 900 MHz

## Technical Specification of Robo-Erectus (TeenSize)



DC Motor Version

Name : Robo-Erectus (TeenSize)

Height : 70cm

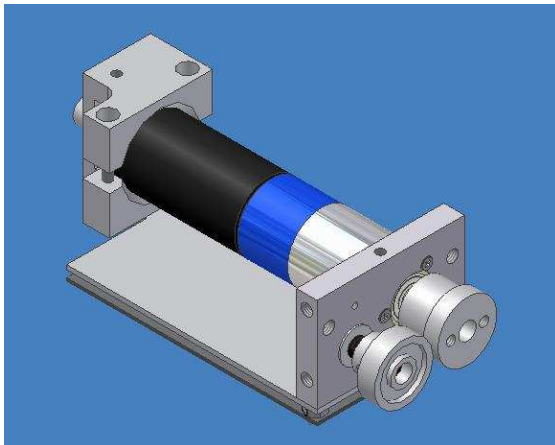
Weight : 5kg

Walking/running speed : 2.5 meter/min

Number of degrees of freedom (DOF) : 24

Actuators used (e.g. servo, pneumatic muscle), for each type

1. Hitec HSR-5995TG
  - a. Torque : 24kg-cm
  - b. Speed : 0.15s
2. Hitec HS-85MG
  - a. Torque : 3.5kg
  - b. Speed : 0.14s
3. Faulhaber DC Micromotor 2342S006CR + 23/1 159:1 + IE2-64



Sensors used (e.g. camera, accelerometer, force sensor), for each type

1. Ultrasonic sensor
2. Infra-red sensor
3. Tilt switch
4. Compass
5. In-house designed omnidirectional camera/ Creative Labs WebCam Live! Ultra for Notebooks

Processing boards used, for each type

1. In-house designed interface board
  - a. Processor : PIC16F873A
  - b. Speed : 20 MHz
2. SONY VAIO VGN-U8G
  - a. Processor : Intel Celeron M Processor 353
  - b. Speed : 900 MHz